S. HRG. 99-229

PENDING PROJECTS OF THE SOIL CONSERVATION SERVICE

HEARING

BEFORE THE

SUBCOMMITTEE ON
WATER RESOURCES

OF THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

SEPTEMBER 26, 1985

Printed for the use of the Committee on Environment and Public Works

U.S. GOVERNMENT PRINTING OFFICE
53-689 O WASHINGTON : 1985

S321-3

53-689 O - 85 - 1

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PENDING PROJECTS OF THE SOIL CONSERVATION SERVICE

FRIDAY, SEPTEMBER 26, 1985

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON WATER RESOURCES,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:35 p.m., in room SD-406, Dirksen Senate Office Building, Hon. James Abdnor (chairman of the subcommittee) presiding.

Present: Senators Abdnor and Burdick.

OPENING STATEMENT OF HON. JAMES ABDNOR, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator ABDNOR. The Subcommittee on Water Resources will be in order.

Senator BURDICK. Mr. Chairman, I would like to submit my statement, for the record.

Senator ABDNOR. Without objection, the statement will be made part of the record. (See p. 2.)

In calling this committee to order, I just want to say that we welcome everyone here for what is usually an annual and relatively routine event for the subcommittee, the hearing on proposed new SCS small watershed project authorizations.

Today, there are two such projects before us, English Coulee in North Dakota, and West Fork of Big Creek in Iowa and Missouri.

Unfortunately, we are also meeting here today for what may also become an annual event, hearing the SCS explain why they need this committee's permission to spend significantly more on certain projects than we authorized them to spend.

Today, the SCS will be asking the committee to increase the authorized cost ceilings on four already authorized projects. This committee, somewhat reluctantly, granted a similar increase for four projects last year. I was not happy about the situation then, and I am not happy about the situation now. It seems to me that the SCS has been in the water resources business long enough to be able to give Congress an accurate estimate of what such a project is going to cost before they ask Congress to authorize it.

I just hope that this is the last time for such a request but I suspect that it may not be.

At any rate, I do want to welcome you, gentlemen, and to give you a pleasant hello.

I just want to say that inflation hasn't been all that high. Even if you have inflation figures in some of these, this is considerably greater. I hope that you will be able to give the word to those who come up with their estimates that they had better start doing a better job of it.

It is not only you that I am picking on, I have a lot to say about the projections of the Department of Agriculture and the things that they put out. I think that we could do better if we tried.

[Senator Burdick's statement follows:]

OPENING STATEMENT OF HON. QUENTIN N. BURDICK, U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

On behalf of the State of North Dakota, I would encourage the Water Resources Subcommittee to approve the English Coulee Soil Conservation Project. The principal features of the project include a flood prevention dam, a diversion structure, 6.8 miles of floodway modification, and 3.0 miles of new floodway. The federal cost is $2,493,500 with the local sponsors paying $1,519,100.

The English Coulee Watershed, covering an area of 73,664 acres (115 square miles), is located in Grand Forks County, eastern North Dakota. The watershed is wholly within the Red River Valley of the North and is a leftbank tributary of the Red River in the Hudson Bay Drainage Basin.

FARM RELATED

Essentially all of the watershed is subject to flooding whenever channel capacities are exceeded (approximate 2-year frequency). Flooding causes considerable damage and inconvenience to farmers in the watershed. Average annual crop and pasture damages are $52,500.

The most recent major flood, April of 1979, which flooded over 13,000 acres, caused agricultural losses of $327,000, and a $300,000 loss to roads and bridges. Conceivably, damages from a similar flood in the future could be substantially greater depending on snow and ice conditions.

Regarding the impact on soil conservation, the watershed has one of the higher wind erosion areas of the State. Wind erosion in combination with water erosion exceeds the tolerable soil loss limits on almost half of the upland of the watershed. This results in an areawide threat to the long-term productivity provided by the soil resource base.

The present average annual displacement of soil by wind and water erosion is estimated at about 330,000 tons per year. Average fertilizer replacement cost per ton of soil at current prices is over $3. In addition, approximately 8,500 tons of sediment are being transported annually from the watershed to the Red River which flows to Canada. Sediment transported across the U.S./Canada border has been a concern of the International Joint Commission, and any reduction would be greatly appreciated by our neighbors to the north. Approximately 189 farms would receive benefits from a controlled spring runoff by reducing extra tillage, reseeding, and crop flood damage.

URBAN RELATED

Extensive urban damage occurs from the flooding of English Coulee. Dollar damages, while important, do not convey the total effects of flooding in the watershed. Reported property damages for three clinics and two hospitals totaled under $100,000. However, flooding of the three clinics resulted in the community's loss of services from 58 doctors for more than 3 days. The regional hospital was open, but operated under emergency conditions. The State Rehabilitation Hospital suffered no physical damage, but was forced to severely reduce services because access was limited to rowboats.

The selected flood control project would realize $352,200 in benefits and reduce flood damage by 89 percent. The local sponsors and the State Water Commission strongly endorse this project. I would like to insert for the record statements provided by local sponsors.

Thank you.

Senator ABDNOR. We welcome you to the committee, Mr. Siegel, you go right ahead.

STATEMENT OF RICHARD D. SIEGEL, DEPUTY ASSISTANT SECRETARY FOR NATURAL RESOURCES AND ENVIRONMENT, ACCOMPANIED BY: EDWARD G. RIEKERT, ASSISTANT DIRECTOR, BASIN AND AREA PLANNING DIVISION, SOIL CONSERVATION SERVICE; AND HARRIS W. JUDY, ASSISTANT DIRECTOR, PROJECT DEVELOPMENT AND MAINTENANCE DIVISION, SOIL CONSERVATION SERVICE

Mr. SIEGEL. Mr. Chairman, thank you very much.

I am pleased to appear before your subcommittee today to testify on six watershed projects that we have submitted to you. As you referred to them in your opening statement, there are two projects which have not previously been approved, and four that have been approved at earlier cost levels that need to be revised.

With me, on my left, is Edward G. Riekert of the Soil Conservation Service. He is Assistant Director of Basin and Area Planning. On my right is Mr. Harris Judy, who is Assistant Director of Project Development and Maintenance. They will be the technical witnesses who will address the specific details of the six projects after my brief opening statement.

Before I begin my opening statement, I want to remark that I am pleased to be here today because I am a former employee of the U.S. Senate. I worked for several years for my home State Senator, Richard Schweiker, on his staff here in this building. In that capacity, I was not able to travel to States of the Midwest and Far West very much, but in this role at the Department of Agriculture, I have been able to see a great deal of the vast interior of the United States, including South Dakota.

I have visited your home State. I don't purport to be an expert on your home State, but I had a very enjoyable visit there 2 years ago, at which time I saw the Black Hills National Forest, the Buffalo Gap National Grassland, and the Fort Pierre National Grassland.

Senator ABDNOR. That is my part of the country.

Mr. SIEGEL. I was very pleased. I made some good friends while I was there in the State, and I hope I can return to the State.

Senator ABDNOR. We are always glad to have you come out and see the fruits of your labor here.

Senator BURDICK. Would the Senator yield.

Senator ABDNOR. Yes.

Senator BURDICK. It is unfortunate that you didn't go 2 miles farther north.

Mr. SIEGEL. On one of my trips west, I was fortunate that my airplane landed in Fargo, and I was able to get off the plane and buy a local paper. So I did the best I could, Senator Burdick.

Senator ABDNOR. I will have him go out and break ground for this watershed that you are having up there.

Mr. SIEGEL. The two new projects that are before us today are the English Coulee Watershed in North Dakota, and the West Fork of Big Creek Watershed, which straddles the border between Iowa and Missouri.

These projects come from Public Law 83-566, the Watershed Protection and Flood Prevention Act of 1954. The main focus of these projects is threefold. First, controlling excess soil erosion in small

watersheds; second, conserving the water used in agriculture; and, third, reduction of flood damages in upstream areas. All the projects that we submit have these purposes in common.

One of the two new projects that are before us today has additional purposes as well. The West Fork of Big Creek project has the additional purposes of municipal, industrial, and rural water supply and recreation.

This administration's policy on water resource development is well known to you by this time. We emphasize local participation, local cost sharing. We analyze those projects on the basis that although local in nature, they will make a contribution to national economic development, and that is the yardstick that we seek to apply.

Our aim in choosing these projects is to maximize national economic development, but we are not so rigid that we cannot grant exceptions in deserving cases.

Both of the new projects that come before us today have been approved by the Secretary of Agriculture as exceptions. They do not achieve the maximum amount of national economic development benefit, but nevertheless they have been seen as worthy exceptions from this standard by the Secretary of Agriculture, and they still provide a favorable ratio of benefits to costs.

A substantial share of the costs of these two new projects, will be borne by the parties who will be directly benefitting. The Federal Government will pay all costs that are attributable to flood prevention. With regard to costs for public recreation, the Federal share will drop to 50 percent. Where the local benefit is in terms of water supply for municipal, industrial, and rural use, then the responsibility for that portion of the costs will be entirely local.

The local sponsors will maintain these projects once they are completed. The local sponsors will assume all costs for acquiring land rights.

Turning now to four projects that have already been initially approved, we are back to you, regrettably, to adjust the cost estimates on four projects. These are the Upper Muddy Boggy Creek project in Oklahoma, the Zuni Pueblo project in New Mexico, the South Fork project in Arkansas, and the Upper Mud River watershed project in West Virginia.

We have discovered that the implementation of water resource projects, while always fairly complex in the past, has become more and more complex and plagued with more and more delays in recent years. We have had a new awareness of environmental issues affecting this program, reaching its peak in the 1970s.

We have had to contend with environmental impact analyses, environmental impact statements and multiple-objective planning procedures that the U.S. Water Resources Council required. Then we have taken a look in recent years at dam safety for earthen dams, and this has brought new criteria to the fore.

We have also had inflation, particularly in the decade of the 1970s, which has pushed projects forward.

From 1978 through September of 1984, this committee gave conditional approval to a total of 46 watershed projects, and we have submitted a complete list of the 46 to recount what this committee has approved. Today, we must tell you that these four watershed

projects out of the 46 are going to exceed their originally planned costs. There would be a considerable detriment in each case for halting or curtailing these projects and we feel that the prudent, although unpleasants course for the Department of Agriculture is to see these projects through. We have explained in our technical submissions why this is necessary.

We have considerable local effort that has gone into these projects from local and State sponsors. They have put considerable time and effort into these four projects, and we feel that the detriment from stopping these projects now would be much greater than the added costs if we see them through.

At this time, we know of only four out of the list of 46 that are in this status. As soon as we are aware of others, we will advise the committee.

To go back to the two projects that I spoke of initially, the two new ones, Mr. Riekert, on my left, is prepared to speak about those two new projects. Then when Mr. Riekert has completed talking about the two new projects, Mr. Judy, on my right, will be able to talk about the four that need to have their costs revised.

Senator ABDNOR. He is the guy who has to do all of the explaining.

Mr. SIEGEL. Yes.

Mr. Chairman, that completes my statement.

Senator ABDNOR. Mr. Riekert.

Mr. RIEKERT. Thank you, Mr. Chairman.

The English Coulee Watershed covers 73,665 acres in Grand Forks County in eastern North Dakota. It is located wholly within the Red River Valley and it is a tributary of the Red River in the Hudson Bay Drainage Basin.

Land uses primarily include cropland, grassland, commercial, and residential. There are 189 farms located wholly or partially within the project area, with an average size of 900 acres. Principal crops grown are wheat, barley, sunflowers, potatoes and beans. Ninety-eight percent of the land is in private ownership, and the remaining 2 percent is in either State and local ownership.

The main resource problem is the flooding of agricultural and urban land and the resulting damage to soil resources from erosion and to channels and waterways from sedimentation. Flooding has a 2-year frequency and damage occurs to crops, as well as private residences, roads, bridges, and public facilities. Channels, ditches and waterways are clogged with sediment.

The project has been planned for watershed protection and flood prevention and installation will be over a 10-year period.

Planned project measures include a floodwater-retarding structure, a diversion structure, 6.8 miles of existing floodway modification, and 3 miles of new floodway. Also, technical assistance will be provided to install conservation land treatment practices to reduce the adverse effects of erosion and sediment damage. These practices include cropping systems, field windbreaks, conservation tillage systems, permanent hayland planting, crop rotation, crop residue use, diversion and grassed waterways.

The plan, when implemented, will provide flood prevention benefits to 9,760 acres in agricultural and urban uses. Average annual crop and pasture damage will be reduced from $58,000 to $1,700.

Protection of over 626 rural and urban homes will be afforded, as well as a reduction of damage done to roads and bridges. Damages to the city of Grand Forks will be cut by 89 percent.

Total flood prevention benefits are estimated to be $395,800 annually. Land treatment benefits will be provided to more than 16,000 acres of cropland, hayland, pasture and rangeland.

If there are no questions at this time I will proceed to the West Fork of Big Creek.

The West Fork of Big Creek Watershed covers 187,000 acres, primarily in Harrison and Daviess Counties, MO, and a small portion in Ringgold and Decatur Counties, IA. Big Creek is a tributary of the Upper Grand River and is a north-south watershed beginning in Iowa and flowing south into Missouri.

The watershed is predominantly rural, located midway between Des Moines, IA, and Kansas City, MO.

Land uses in the watershed are primarily cropland, grassland, and forest land. There are 625 farms located wholly or partially in the watershed, with an average size of 300 acres. Principal crops are corn, soybeans, and wheat. There are 54,000 acres classified as prime farmland in the area. Ninety-nine percent of the land is in private ownership, and the remaining one percent is State or locally owned.

Foodwater damage and loss of soil productivity due to erosion and sediment damage are the principal resource problems in the watershed. There are almost 45,000 acres in the flood plain, a fourth of which flood every other year. Crops, farm buildings, equipment, fences, and roads and bridges are damaged or destroyed from these floods.

The project has been planned for watershed protection, flood prevention, water supply, and recreation area development. The project installation period is 10 years.

Planned project measures include 352 small floodwater retarding dams for flood prevention; one multiple-purpose reservoir for municipal, industrial, and rural water supply, recreation, and flood prevention; 209 grade stabilization structures; and 354 acres of waterways or outlets. Other measures include conservation work consisting of underground outlets, terraces, pasture and hayland planting, conservation tillage, and contour farming.

The project will reduce flooding on 23,316 acres of flood plain and crop and pasture damage will be reduced from $1,564,000 to about $686,900. Erosion will be reduced by 40 percent and sediment delivered to the mouth of the watershed will be cut by 65 percent. Cropland soil loss will go from 17 tons-per-acre per year to below 3 tons. Prime farmland will be increased 2,836 acres by reducing flood risk. A 65-percent reduction of sediment going to wetlands will occur. The recreation development will provide facilities for 24,000 visits annually and about $121,000 in annual benefits. New jobs for construction workers will be created and reduced hazards caused by flooding of roads and bridges will result in a safer environment for the residents.

The total annual benefits of the project are estimated to be $3,467,000.

Senator ABDNOR. I don't think I have any questions. This is the explanation that I am going to be listening to. I may ask Mr. Judy, when he gets through, how accurate he thinks he is.

Mr. JUDY. It is nice to be popular.

We do have four of these, so I am going to summarize the pertinent information, since you have the complete transcript.

The Upper Muddy Boggy Creek Watershed project in Oklahoma provides for the installation of conservation land treatment practices and 36 single-purpose structures for flood prevention and sediment reduction.

The measures are expected to reduce sheet erosion and runoff; provide flood protection to 8,876 acres of flood plain; reduce the amount of sedimentation in Parker Reservoir and the Red River; and improve economic conditions of low-income farm families and rural communities.

At the time of approval the total installation cost of the project was estimated to be $7,198,000, using the 1978 price base. The local sponsors were expected to furnish 40 percent of that cost. To date, 19 of the 36 structural measures planned have been constructed, and 12 of the remaining structures have been designed. Neither the purpose nor the scope of the project has been altered. The items that led to increased cost estimates are as follows:

First., design and construction costs increased as a result of new structural design criteria for earthen dams made necessary by dam safety requirements. Costs were increased approximately 35 percent by these adjustments.

Second, archaeological finds required additional investigation and coordination with the Advisory Council on Historic Preservation and State Historic Preservation officer.

Senator ABDNOR. How long a period was that?

Mr. JUDY. I am sorry, sir.

Senator ABDNOR. The first one, you said, that increased by 35 percent, over what period of time was that?

Mr. JUDY. That was from 1978 to the present, over 6 years-plus.

Senator ABDNOR. All right.

Mr. JUDY. Archaeological finds required additional investigation and coordination, and also some funds were made available to recover some of the archaeological artifacts.

National average construction indices, during the period 1978 to 1982, did not reflect the rapid increases in actual costs affecting this project. During this period, oil field drilling and road construction were at record levels. There was an acute shortage of contractors, and costs rose at a very sharp rate.

Local sponsors have carried out their responsibilities on this project. They are in a position to schedule construction of at least four structures at the present time. They are actively acquiring land rights for the additional structural measures.

The Federal costs at the time of authorization at the 1978 level were $4,343,000. Indexed for inflation to 1985 would have allowed $7,828,000, and we estimate that $11,500,000 is what would be needed to complete the project.

At the time that it was approved at the then current 6.8-percent interest rate, the benefit/cost ratio would have been 1.7 to 1, and it is now a 1 to 1. If we assume the costs that are already provided, or

sunk costs, and we take the remaining benefits and compare them to the remaining costs, then that benefit/cost ratio is about 1.4 to 1.

We feel that we have an obligation to these sponsors, and that we should continue working with them. We request your concurrence to proceed.

Senator ABDNOR. Let me stop you there because I can understand these things better when I do it at the moment. Let's go back to Mr. Reikert.

You just gave us two new projects. What was the year the estimate was computed on those?

Mr. REIKERT. We have updated the estimates to 1985 costs.

Senator ABDNOR. If this passes today, how soon will construction begin in North Dakota?

Mr. REIKERT. We still need the approval of the House, but if we can assume that that will come, we should be able to, within 12 to 16 months, turn earth, and get started on this. We would have to go through the design phase, and the sponsors would have to obtain the land rights before this could occur.

Senator ABDNOR. If you come back, it is not going to be because of any under-estimating on your part up until now, it is going to be because of something that happens between the time we get it approved and the time the construction begins.

Mr. REIKERT. We hope not, Mr. Chairman. We are well aware of the committee's concern over the cost increases, and we have passed this on to the States and our cost estimaters.

Senator ABDNOR. They are going to have to. I don't want to get fooled by saying that this is so much. I understand that costs go up, and they had better build them in. They wouldn't last very long in the private sector if they went out and bid on something, and if it came up that way, they would have to eat it.

I know that you can't predict 5 years down the road, but I will tell you somebody who figures it that way, and that is the Department of Defense. They admitted that they had I don't know how many million dollars that they had figured for inflation, and someone finally made them accountable for it.

You have to put all of the figures out and let us look at them and know what we are in for. As these costs increase, they have to be pro-rated, don't they, on the Federal and State level? Local government puts some of the money up.

Mr. REIKERT. Yes, local government cost shares.

Senator ABDNOR. If the costs go up, they have to kick in, too, I would guess.

Mr. REIKERT. That is true.

Senator ABDNOR. Maybe the taxpayers back home are as unhappy as the Members of Congress.

We are going to put you under the gun on these to see how much you miss by.

Senator BURDICK. Mr. Chairman.

Senator ABDNOR. Yes.

Senator BURDICK. Thank you for your remarks.

You said that it would take you 16 months to start the program at English Coulee.

Mr. REIKERT. Yes, we hope that it is true.

Senator BURDICK. Why don't we set a year from today as the date?

Mr. REIKERT. We will have to turn it over to Mr. Judy to give you an answer. He is responsible for it once it gets into construction.

Senator BURDICK. Can you tell us right now?

Mr. JUDY. We can meet any requirement you want.

Senator ABDNOR. I will let you go to part II.

Mr. JUDY. Zuni Pueblo Watershed project is in New Mexico. That plan provides for installation of conservation land treatment practices, and one flood water retarding structure with associated outlet facilities.

The project measures are expected to eliminate flooding and associated damages in the Pueblo of Zuni, and about 543 families will benefit from reduce flood water and sediment damage to their homes. It will also reduce flooding and associated damage on 1,440 acres of prime irrigated land.

The total installation cost at a 1975 price base of the project at the time of authorization was estimated to be $4,827,000 of which local sponsors would furnish $1,182,500 or 24 percent.

The Bureau of Indian Affairs has assumed responsibility for providing archaeological clearance for the site. The project site is all on the Zuni Pueblo land. The Soil Conservation Service, under authority of Public Law 93-291, will transfer up to 1 percent of total project installation cost to cover archaeological clearance responsibilities.

Again the purpose or scope have not been altered. Items that have led to increased cost estimates are:

First, changed criteria and guidelines for dam safety and revised excavation estimates in the emergency spillway area. That was due to insufficient geologic data at the time the plan was made.

Second, geologic data not available during work plan preparation resulted in cost increases.

Third, construction costs in New Mexico on these types of reservoirs have increased more rapidly than the national construction indices.

Again, the local sponsors have carried out their responsibilities. The land rights have been acquired for the proposed structure.

The authorizing level based on 1975 costs was $3,645,000, currently adjusted for inflation over that period would be $7,150,000. Our estimate is that we need $11,700,000 to complete it.

At 6½ interest rate, the B/C ratio was 1.3 to 1 when it was authorized. Currently it would be a 0.9 to 1. Again, we feel that the sponsors have made significant commitments and we should continue working with them, and we request your concurrence.

Senator ABDNOR. Is that all it amounted to in 1975; have we come this far?

On this project, that is the cost in 1975?

Mr. JUDY. Yes.

Senator ABDNOR. How much were the interest costs at that time?

Mr. JUDY. It went from $3,645,000 to $7,150,000 just for the inflation index.

Senator ABDNOR. That is a tremendous change. You went from $3.6 million to $11.7 million.

Mr. JUDY. The concern that we have is going from the $7,150,000 to the $11.7 million. Your authorization would have authorized us to spend $7,150,000.

Senator ABDNOR. Go ahead.

Mr. JUDY. The South Fork project in Arkansas. This plan provides for installation of conservation land treatment practices, one multipurpose structure, and two flood water retarding structures, measures to reduce sheet and rill erosion; provide flood protection to 1,606 acres of agricultural flood plain, rural roads, bridges, and other fixed improvements; reduce flooding in the city of Mount Ida; reduce sediment delivery to Lake Oachita; and provide 1,352 acre-feet of municipal and industrial water storage for the city of Mount Ida.

Additional benefits not claimed in the original plan will also occur. Since the project was authorized, the county road that runs through the flood plain has been taken into the State highway system. The Arkansas Department of Transportation is developing plans to improve the road. It has developed an alternative cost with the watershed project in place and without the project. They estimated that the reduction in bridge size with the watershed project in place will reduce the initial cost of the highway by about $1,250,000. The sponsors are working closely with the Department of Transportation to reduce the cost of the highway.

Again, neither the purpose nor the scope of the project has been altered. Items that have led to increased cost estimates are:

First, design and construction costs increased due to improved structural design criteria for earthen dams to meet dam safety requirements, including an increase in the emergency spillway capacity, and the installation of chimney drains.

Second, implementation of the National Environmental Policy Act of 1969, Public Law 91-190, has resulted in increased costs. Considerable additional personnel and approval time were necessary to assist sponsors in the water quality permit process.

Again, the local sponsors have carried out their responsibilities. Site 3 is currently under construction and the entire project is scheduled for completion by 1990. All land rights have been acquired for the entire project.

The approval level at 1975 prices was $1,912,000, adjusting it for inflation, it increases to $2,987,000, and we estimate $5.3 million needed to complete the project.

When we compare the remaining costs to the average annual benefits foregone if the project was terminated gives us a 1.2 to 1 benefit to cost ratio.

Again, the sponsors have made significant contributions and we think we should continue working with them, and ask for your concurrence.

Senator ABDNOR. Let me back up on something. The Federal fund authorization level that was $1,912,000. At that time, that is what you felt it would cost.

Mr. JUDY. Yes.

Senator ABDNOR. Then we come along with a Federal fund authorization level adjusted to 1985 for inflation only, and that is $2,987,000.

Mr. JUDY. It has actually gone from $3 million to $5.3 million. The figure in the middle is the approval amount updated by cost indexing to account for inflation over that period.

Senator ABDNOR. This is the actual.

Mr. JUDY. Yes, we could spend $2,987,000 without coming back to this committee.

Senator ABDNOR. This figure of $1.9 million, that really represents what you thought it would cost at the time. You could have done for $1.9 million at that time what you are going to do with $5.3 million today.

Mr. JUDY. Correct. A significant part of the increase in this one is because this is an earthquake prone area, and that was not taken into account during the planning. There are significant costs allocated to what we call chimney drains, which is a sand layer to buffer it in case there is an earthquake, it would allow some movement, and it also intercepts the water.

Senator ABDNOR. Arkansas is subject to earthquakes?

Mr. JUDY. This particular area of Arkansas is determined to be an earthquake prone area. Under the dam safety requirements, it does require this kind of provisions for the building of an earthen dam.

Senator ABDNOR. When did you start construction?

Mr. JUDY. If you are talking about a major earthen dam such as these, the Soil Conservation Service has been in the business since the 1950s.

Senator ABDNOR. What about this specific project, it was apparently authorized in 1975, when did you begin?

Mr. JUDY. It was several years. We are just now under construction for the first dam. The sponsors in this particular case have been delayed in getting land rights. There is one multipurpose structure, and two flood water retarding structures, and we are just now under construction on the first structure. So there are two yet to go.

The final project is the Upper Mud River Watershed project in West Virginia. That project provides for installation of conservation land treatment practices, and one multipurpose structure with water-related recreation facilities.

The project would provide watershed protection through the installation of land treatment on 57,500 acres of rural lands in the watershed. It would provide urban flood prevention to Hamlin and to State Route 3. It would provide protection to agricultural land below the confluence of Mud River and Left Fork, and reduce flooding of roads and bridges below Palermo.

It would provide recreation for nearly 100,000 annual visitor days on and around the 307-acre lake built as part of this project.

At the 1979 price base, the project was estimated to cost $4,397,300. The average annual benefits were estimated at $814,900, which would have given us a 1.1 B/C ratio.

The purpose of the project has not been altered. Items that have led to increased cost estimates were changed, criteria and guidelines for dam safety; and a latent foundation condition not known during planning which was discovered during design investigations.

Again, local sponsors have made some substantial commitment to the project. They include a special county-wide tax levy which is

currently worth $704,000, a $500,000 commitment from Boone County, and $133,900 appropriated by the State of West Virginia.

In addition, the sponsors have applied for a $250,000 grant from the Governor's Community Partnership Grants Program. The State Department of Highways is expected to assist with the needed road relocations.

At the time of approval, with 1979 cost estimates, the Federal cost was estimated to be $4,397,300. With inflation, that would now be adjusted to $5,020,000, and we are estimating that it is going to take $7,300,000 to do the job.

Again, we feel that the sponsors have made significant commitments, and we would like to continue working with them, and request your concurrence.

Senator ABDNOR. They were raring to go at the beginning.

Mr. JUDY. They are ready to go.

Senator ABDNOR. What made the difference? What did they do that the others didn't do?

Mr. JUDY. They have been working since 1979 getting ready to go. This one was approved in 1979. It was my understanding, for this project, when we went back to the sponsors and indicated that we had a significant increase in cost, that they actually mortgaged the county courthouse to come up to meet the local share of the cost. That is how bad they wanted the project.

Senator ABDNOR. I have no more questions. I will say this, though, you are under the gun now, and we are going to watch you from year to year.

Are your other projects running about this way too?

Mr. JUDY. No. There are a number of those projects that are about to be completed now.

Senator ABDNOR. They have done pretty well within the guidelines and the dollars?

Mr. JUDY. That is correct. We also have some that have been administratively approved that have gone up, but it was not necessary to come back to the committee because they were not approved by the committee to start with. I would say that they are running at about the same proportion. This represents 8 projects out of 46.

Senator BURDICK. I have one very important question.

Senator ABDNOR. By all means.

Senator BURDICK. If we got some money in the supplemental would that hurry up the construction date?

Mr. REIKERT. All sources of funds help move up construction dates. What we have to work on now is—that they have not been able—to design the structure. We can't design until it is approved.

Senator BURDICK. I see.

Mr. REIKERT. We still have to go through the design process.

Senator BURDICK. It has not been initiated yet.

Mr. REIKERT. We have not initiated the design yet. Also, the sponsors have to then proceed with obtaining land rights, and they have not started that.

Senator ABDNOR. Gentlemen, I am going to say that we may decide to submit some written questions to you, that you could answer for the record.

Mr. SIEGEL. We will be pleased to do so.

Senator ABDNOR. I will ask unanimous consent that I be allowed to place a number of statements and letters from members into the record.

We thank you very much for your appearance today. As I said, I will be watching this North Dakota project very closely. They will show us how they can really keep within the confines of the estimates.

With that, we stand adjourned.

[Whereupon, at 3:17 p.m., the subcommittee adjourned.]

[Statements and letters submitted for the record and responses to additional questions follow:]

53-689 O - 85 - 2

STATEMENT
BY
RICHARD D. SIEGEL
DEPUTY ASSISTANT SECRETARY
NATURAL RESOURCES AND ENVIRONMENT
U.S. DEPARTMENT OF AGRICULTURE
BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
ON
THURSDAY, SEPTEMBER 26, 1985

Mr. Chairman, I am pleased to appear before your subcommittee today to testify on six watershed projects that the Department of Agriculture submitted to the Committee for approval. I have two Soil Conservation Service representatives with me: Mr. Edward G. Riekert, Assistant Director, Basin and Area Planning Division, and Mr. Harris W. Judy, Assistant Director, Project Development and Maintenance Division.

Mr. Chairman, I shall first discuss the two new watershed projects you are considering. Later, I shall discuss the four remaining projects. The two new projects are:

English Coulee Watershed in North Dakota, and
West Fork of Big Creek Watershed in Iowa and Missouri.

Under the Watershed Protection and Flood Prevention Act of 1954, Public Law 83-566, the Soil Conservation Service is giving the highest priority to projects that emphasize the control of excessive soil erosion, conservation of water used in agriculture, and reduction of flood damages in upstream areas. Both of the new projects under consideration today are for the purpose of watershed protection and flood prevention. The West Fork of Big Creek project has the additional purposes of municipal, industrial, and rural water supply and recreation.

This Administration's policy for water development emphasizes local participation and cost sharing. Participation of the Federal Government in funding local water projects is based on the contribution these projects make to national economic development. The Soil Conservation Service, P.L.-566 Small Watershed program is governed by this policy.

Local units of government and other sponsoring organizations initiate watershed projects. The projects are developed by planning teams from USDA that cooperate with local conservation districts, county governments, and other local entities. Generally, local steering committees are formed to give guidance to the planners, help establish planning objectives and priorities, and help select the final plan. The Governor of each State reviews the project applications to assure their consistency with State plans and programs.

For Federal participation in funding, generally the Department recommends the plan that produces the greatest net economic benefits unless other factors warrant an exception. For both of the new projects under consideration today, West Fork of Big Creek and English Coulee, exceptions have been granted by the Secretary of Agriculture. The estimated project benefits still exceed the estimated costs.

The direct beneficiaries of these projects have agreed to bear a substantial share of the costs of services they will receive. Under Public Law 83-566, the beneficiaries will contribute financially in accordance with the project's purpose. The Federal Government will pay for all flood prevention construction costs, while the sponsors will provide at least 50 percent of the construction costs for public recreation, and 100 percent of the construction costs for municipal, industrial, and rural water supply. Local sponsors will provide all landrights and operate and maintain all completed facilities.

Mr. Chairman, in addition, the Administration supports the four previously approved watershed projects you are again considering because their costs have exceeded their previously approved levels:

Upper Muddy Boggy Creek Watershed Project, Oklahoma
Zuni Pueblo Watershed Project, New Mexico
South Fork Watershed Project, Arkansas
Upper Mud River Watershed Project, West Virginia.

The past several years have been challenging for Federal agencies charged with carrying out water resource projects. A new awareness of environmental issues reached its peak during the 70's. Environmental impact analyses were thus required along with lengthy multiple-objective planning procedures required by the U.S. Water Resources Council. Finally, there were design and construction cost increases due to new and improved structural design criteria for earthen dams to meet dam safety requirements. All these factors served to delay many worthy projects.

Economic considerations resulting from the inflation of the past 20 years have translated the delays in water projects into rapidly increasing costs.

From August 1978 to September 1984, your committee conditionally approved 46 watershed projects. The approvals contain the condition that Federal costs, after adjustment for inflation, could not exceed those shown in the work plan.

We are here today to inform the Committee that these four watershed projects will exceed the originally planned costs, and to explain several reasons why this has happened. We will outline the reasons in detail for each of the four projects in a moment.

The local and State sponsors have contributed significant time, effort, and financial obligations to these projects and are anxious to complete them.

At this time we know of no other projects of the 46 that were conditionally approved that will exceed the original plan cost. However, we will inform the Committee as soon as we obtain such information.

After my presentation, Mr. Riekert will provide a brief technical explanation of the two new projects. For the explanation of the four previously approved projects, I will then defer to Mr. Judy. Unless you have other questions of a general nature, Mr. Riekert will proceed.

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

OCT 10 1985

Honorable James Abdnor
Chairman
Subcommittee on Water Resources
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Thank you for your letter of September 27, 1985, along with further questions which you did not have the opportunity to raise when I testified before your Subcommittee on September 26, 1985. It was a pleasure to appear before your Subcommittee. Our written response to your questions is enclosed.

If we can be of further assistance to the Subcommittee, please let us know.

Sincerely,

Richard D. Siegel

Richard D. Siegel
Deputy Assistant Secretary
for Natural Resources and Environment

Enclosure

Further Questions and Responses

Mr. Abdnor. Mr. Siegel, do both English Coulee and West Fork of Big Creek have strong local support?

Mr. Siegel. Both the English Coulee and West Fork of Big Creek Watershed projects have strong local support. In the case of English Coulee, planning started in 1975 as a result of interest by the City of Grand Forks. More than 100 meetings were held to review thoroughly the scope of the problems and to select a plan that was mutually acceptable to the many interest groups. Strong local support exists for this project.

The West Fork of Big Creek Watershed also enjoys strong local support. Again, many meetings were held to involve the public in the planning process and the recommended plan has strong local support for implementation.

Mr. Abdnor. Are these projects in any way controversial? If so, in what way?

Mr. Siegel. Neither of these two plans is controversial. They were both formulated to solve local flooding and land treatment problems while minimizing any negative impacts.

Mr. Abdnor. Could you explain, in some detail, why, in the case of both English Coulee and West Fork of Big Creek, the plan being recommended is not the plan with the greatest net economic benefits?

Mr. Siegel. For both of these projects exceptions were granted by the Secretary of Agriculture to the requirement that the plan produce the greatest net economic benefits. An exception was granted for the English Coulee project to include $34,000 of PL-566 funds for technical assistance to install an estimated $162,100 of accelerated land treatment on 16,400 acres of cropland. There is a need to reduce erosion that threatens long-term productivity and to reduce operation and maintenance cost caused by sediment deposits in ditches and waterways. Gross soil erosion will be reduced by 71,000 tons annually, and sediment entering the Red River Basin will be reduced by 6,300 tons annually. The installation cost will be borne by the landowners and by public funds other than PL-566.

For the West Fork of Big Creek Watershed the recommended plan is the same as the NED plan except for the proposed land treatment. The land treatment proposed is more conservative than the NED plan and will provide for less land to be in row crop production. Instead of using more costly measures such as terraces and grade stabilization structures to protect the soil resource base, the plan calls for changing the cropping pattern. This will be done by changing crop rotations by converting 2,870 acres of cropland to grass in the interest of reducing current production while sustaining productivity for the future.

Mr. Abdnor. Has there ever been an SCS project that incorporates as many dams as the West Fork, Big Creek project?

Mr. Siegel. The West Fork of Big Creek project will have 352 small dams and one multiple-purpose structure, which is the largest number of dams in an approved watershed under this program. It is not uncommon for some projects to have 20 to 30 structures and in one case, the East Fork of Big Creek, also in Missouri, 99 dams are being installed.

Mr. Abdnor. What are the advantages of many small dams such as this over a few larger dams? Could the same benefits be achieved by building just a few larger structures?

Mr. Siegel. A system of many small reservoirs for flood prevention and grade stabilization satisfied most environmental concerns and produced a higher benefit-to-cost ratio than a few large structures. During the formulation process both large and small structures were evaluated. A system of five large structures did provide benefits which exceeded the costs but would have caused excessive losses to important wildlife habitat, inundated large tracts of prime farmland, and adversely affected farming operations.

Thus, a system of many smaller reservoirs satisfied most environmental concerns and produced a higher benefit-to-cost ratio. The small reservoirs trap sediment, store floodwater, stabilize gullies and provide stable outlets for associated land treatment measures. These structures will be an integral and interrelated part of a complete land treatment system. The reservoirs will also provide incidental recreational opportunities, farm water supplies for fire protection, livestock water and wildlife habitat.

Mr. Abdnor. How many resolutions approving small watershed projects that incorporate cost limitations have been approved to date? How many of these do you anticipate will exceed their authorized cost limits and require this Committee's approval to proceed with construction?

Mr. Siegel. There have been 46 resolutions approving small watershed projects which include cost limitations. On August 6, 1984, this committee authorized SCS to raise the spending limit on four of the 46 watersheds.

Today we are requesting raising the limitation on four more watersheds. We do not know how many, if any, of the remaining 38 watersheds will exceed the authorized spending limit. We are carefully monitoring the program and will inform the committee as soon as we identify any project which will exceed its limitation.

Mr. Abdnor. What guarantee does the Subcommittee have that SCS will not return in the future and ask for a cost ceiling increase for English Coulee and West Fork of Big Creek?

Mr. Siegel. The SCS planning staffs have carefully reviewed the cost estimates on each of these projects. We feel the current cost estimates are as accurate as the current state of the art allows. We feel these estimates will be adequate unless there are additional requirements imposed by future laws or changed conditions which cannot be foreseen at this time.

Mr. Abdnor. How much Federal money has been expended to date for each of the four projects before us that require a cost ceiling increase?

Mr. Siegel. Through fiscal year 1985 the federal obligation for Zuni Pueblo, New Mexico, has been $292,000; Upper Muddy Boggy Creek, Oklahoma, has obligated $7,500,000; Upper Mud River, West Virginia, has obligated $945,000; and South Fork, Arkansas has obligated $1,721,000.

Mr. Abdnor. In your reasons for the cost overruns for two of the projects before us, you state that compliance with NEPA and the processing of environmental permits are in part responsible. Since NEPA and these permitting requirements were on the books years before these projects were authorized, why were these costs not anticipated?

Mr. Siegel. Both projects were among the first projects which SCS planned to require environmental impact statements. The costs of the cold water release features of the South Fork, Arkansas, project was underestimated in the original plan partly because this type of structure was new to SCS.

In the Upper Muddy Boggy watershed, the cost of archaeological investigations and recovery was not adequately covered in the original plans. We feel with current experience, the present cost estimates are much more realistic.

Mr. Abdnor. Could you please describe the geologic conditions which have contributed to the increased costs of the Zuni Pueblo and Upper Mud River Projects?

Mr. Siegel. The Zuni Pueblo watershed in New Mexico is in a very dry climate. The foundations are collapse prone when they get wet. The limited geologic investigation during planning did not identify this problem. The SCS is now painfully aware of this problem and checks for these conditions on all new projects in this area of the county.

The Upper Mud River structure has foundation material which is too weak to support the structure. The preliminary investigations during planning underestimated the extent of the weak material and the volume of material that would have to be replaced.

Mr. Abdnor. Would you describe the nature and extent of the archaeological finds which have contributed to the increased cost of the Upper Muddy Boggy Creek Project? Who made these finds? Were they made as a result of SCS project investigations?

During watershed planning SCS contracted with a professional archaeologist to survey the watershed. This report showed no significant material in the watershed. After the project was authorized the State of Oklahoma questioned this survey and the watershed was resurveyed. Two sites were identified as significant and the archaeological material was relocated as a project expense. These finds were definitely the result of SCS efforts and cooperation with the State and local sponsors.

Mr. Abdnor. When did the new safety requirements for federal dams go into effect? Were these the dam safety requirements developed by the Interagency Committee on Dam Safety (ICODS)?

Mr. Siegel. The Interagency Committee on Dam Safety issued their guidelines on June 25, 1979. The ICODS guidelines are used by SCS and are our reference on these projects.

Mr. Abdnor. How many existing small watershed dams are there that do not meet the new Federal Dam Safety criteria? Is there any intent on the part of SCS to notify sponsors of existing SCS small watershed dams or in some way assist those sponsors in meeting the new dam safety requirements?

Mr. Siegel. Of the estimated 1,930 SCS-assisted dams that were inspected by the Corps of Engineers program, about 538 were considered as unsafe. It should be noted that the dams inspected were those considered as having a high hazard potential.

SCS is providing technical assistance to local sponsors to inspect their dams and will provide some technical assistance and advice on how the sponsors should proceed to ensure the safety of existing dams. Under the agreements between the SCS and the watershed sponsors, the local sponsors are responsible for all operation and maintenance of the watershed structures.

Mr. Abdnor. You have given reasons why each of the four previously authorized projects require cost increases. Would you please quantify the dollar and percentage amount which each of the given reasons has contributed to the increased cost of the project?

Mr. Siegel. For the South Fork Watershed in Arkansas the cost increase over inflation is $2,313,000. The major factor for this increase was the design and construction costs which account for 90 percent, or $2,082,000. The other item which increased costs for this project was $231,000 for additional environmental features. Those costs are only 10 percent of the total increase.

On Zuni Pueblo Watershed in New Mexico the cost in excess of inflation is $4,550,000. Changed criteria accounted for 40 percent of the increase or $1,800,000 of the total. The foundation problems due to geologic conditions account for another 40 percent or 1,800,000. The remaining 20 percent or 95,000 was caused by the increased cost to contractors of obtaining water required for construction in New Mexico. The national construction indices did not adequately reflect the increased water costs.

The Upper Muddy Boggy Watershed in Oklahoma will cost $3,672,000 more than the original estimate adjusted for inflation. Changed criteria added $1,285,000 or 35 percent of the increase. The archaeological conditions added $350,000 or about 10 percent. The remaining $2,037,000 is 55 percent of the increased cost and was caused by the shortage of contractors and the oil boom during the 1978-1982 period.

On Upper Mud Watershed in West Virginia the cost increase is $2,300,000. Two factors caused this increase. The weak foundation, which is a geologic condition, added $920,000 or 40 percent to the cost. The remaining 60 percent, or $1,380,000 was caused by changed design criteria and dam safety requirements.

Mr. Abdnor. Could you please tell the Committee the exact benefit/cost ratio for the Upper Mud River watershed? You show it as 1 to 1.

Mr. Siegel. The benefit/cost ratio was rounded down. The actual computed value of the benefit/cost ratio was 1.003:1. The annual benefits are $864,900 and the average annual cost is $862,800.

Mr. Abdnor. Would you describe the nature and extent of the social benefits of the Zuni Pueblo watershed which were not assigned dollar values?

Mr. Siegel. About 543 families will benefit from reduced floodwater and sediment damage to their homes. In addition to the obvious economic loss associated with a flood, there is also a real potential for loss of life. The human suffering would be significant. The Pueblo of Zuni straddles the Zuni River and is expanding in the floodplain so the danger is increasing each year. The area is a low income area and benefits increase the standard of living in the area.

Mr. Abdnor. I understand there is an archaeological study currently being conducted on the Zuni Pueblo watershed. Please give the Committee any late details from this study and estimate the impact this will have on the project.

Mr. Siegel. The initial surface survey indicated there were incidental archaeological items in the watershed. However, the preliminary subsurface investigations indicate there are more extensive archaeological remains than were first thought. In late August an archaeological field investigation was begun. On September 10, 1985 the Governor of the Pueblo of Zuni sent a letter to the Area Director of the Bureau of Indian Affairs describing the findings during the first three weeks of the contract.

We have just received a copy of the letter which describes the findings so far. I would like to quote from that letter: "Given our initial expectations compared to the actual extent of the remains it is clear that the data recovery plan is nowhere near the scope and size it ought to be." The letter concludes with the following statement. "In the opinion of our Archaeology Program Director these cultural resources are of great importance to our understanding of this period of prehistoric adaptations in the Zuni area and deserve a greater effort to recover this data than is presently planned, or the consideration of ways to avoid complete destruction of the sites.

We would appreciate your Area Archaeologist visiting the Oak Wash project area at his earliest convenience."

Mr. Chairman, it is obvious that SCS will not proceed with any construction on this project until the archaeological questions have been answered to the satisfaction of the sponsors. We cannot estimate how long or how costly this delay will be at this time.

Any costs of relocating or protecting the archaeological finds will be paid from funds other than PL-566.

ROBERT T. STAFFORD, VERMONT, CHAIRMAN

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United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510

September 13, 1985

The Honorable James Abdnor
Chairman
Water Resources Subcommittee
Environment and Public Works Committee
U.S. Senate
Washington, D.C. 20510

Dear Mr. Chairman:

I have been notified by the U.S. Department of Agriculture that the Soil Conservation Service has recommended to Congress the English Coulee Watershed project in North Dakota. This project is recommended under the authority of Public Law 83-566. The project was officially transmitted to the President of the Senate on August 14, 1985.

The English Coulee Watershed project is very important for the northeastern part of my state. Principal project impacts include the reduction of flood damage on 13,250 acres of cropland of which more than 10,000 acres are prime farmland. In addition, there will be a reduction in flood damage for 41 rural residences and farmsteads. Flood protection will be provided to 585 urban residences, 5 medical facilities, and 17 commercial and industrial businesses. For further information, I have attached a project description.

I would respectfully request that congressional approval be obtained through the committee resolution process and that your staff recommend appropriate language for the resolution.

With kind regards, I am

Sincerely,

Quentin N. Burdick

ENGLISH COULEE WATERSHED

Size and Location - 73,664 acres in Grand Forks County, North Dakota

Sponsors - Eastern Grand Forks County Soil Conservation District
Western Grand Forks County Soil Conservation District
Grand Forks County Water Resource District
City of Grand Forks
North Dakota State Water Commission

Purposes - Watershed Protection and Flood Prevention.

Principal Measures - Soil conservation practices on farms and structural measures consisting of one (1) floodwater retarding structure, one (1) diversion structure, 6.8 miles of existing floodway modification and 3.0 miles of new floodway.

Annual Benefits and Costs	Average Annual Dollars	
	Benefit	Cost
Flood Prevention	$352,200	$319,935

Capital Costs -	P.L. 566 Funds		Other Funds		Total
	Dollars	Pct.	Dollars	Pct.	Dollars
Land Treatment Measures	$34,000	17.3	$162,100	82.7	$ 196,100
Structural Measures					
Flood Prevention					
Floodwater Retarding & Diversion Structures	2,182,600	88.6	280,600	11.4	2,463,200
Floodway	0	0.0	940,900	100.0	940,900
Project Administration	56,200	71.4	22,500	28.6	78,700
TOTAL	2,272,800	61.8	1,406,100	38.2	3,678,900

WATER RESOURCE DISTRICT

GRAND FORKS COUNTY

NORTH DAKOTA

GRAND FORKS N DAK 58201

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EL DEE CUMMINGS
214 FRONT STREET
LARIMORE N DAK 58251

VICE CHAIRMAN
C W ERNESS
RFD No 1 BOX 161
GRAND FORKS N DAK 58201

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418 SOUTH 8TH STREET
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September 12, 1985

Honorable Quentin N. Burdick
United States Senate
Washington, D.C. 20510

Re: English Coulee Diversion
Red River of the North

Dear Senator Burdick:

It is our understanding that your committee will consider a project here in North Dakota on September 26, 1985.

We refer to this project as the Third Phase of the English Coulee Diversion to the Red River of the North. The people of Grand Forks, North Dakota have over the span of many years been inundated with water from spring run off and periods of high precipitation. It is not unusual for the Red River to overflow its banks and inasmuch as it is one of the few rivers that run North, there is always the danger of flooding because of spring thaw being slower in the northern areas of North Dakota and Canada than it is here in Grand Forks County.

Over twenty years ago the United States government through the Soil Conservation Service assisted Grand Forks County in starting a diversion around the City of Grand Forks of the English Coulee, which ultimately flows into the Red River and has been instrumental in flooding damage that has taken place here in the City.

The Corps of Army Engineers has made many studies of the flooding of the Red River and we see that congress has now authorized additional funding for another study

to see if some of the flooding problems can be alleviated.

This does not take care of the immediate problem for the City of Grand Forks, only the completion of the English Coulee would offset the devastating flooding that took place in 1979 and paralyzed our city along with a cost of millions of dollars in damage.

Last year we finished the second phase of the English Coulee Diversion which we handled through the assistance of the State Water Commission, the County, and the City of Grand Forks and it was in some respects a compliance with the 100 year flood requirements that the government has set. This required a revamping of the First Phase as well as a continuation of Phase Two.

In order to complete the English Coulee Diversion Project we are asking for help on the Third Phase. This is an all important phase, as it calls for the construction of a dry dam and holding area. If this dam and holding area had been in place in 1979, there would have been very little flooding in the City of Grand Forks, according to the Corps of Army Engineers.

As a matter of fact, we are in the process of trying to collect local dollars in order to acquire the necessary landrights. We know that this is one of the first requirements before we can even expect any government assistance.

The Water Resources Board is doing its best to keep the project moving, and with the cooperation of the City of Grand Forks and our State Water Commission, we hope that this project will become a reality in the hope that you will see fit to help us if you can with this very worthwhile project. There is no way we can emphasize enough the importance of this project to the people here in the valley. We hope you will consider our need favorably.

As you probably know, we have had a great deal of assistance with our watershed program here in Grand Forks County and the government has been more than instrumental in making this a reality. The results of the watershed program have been remarkable and we are close to the end of our project and we are very proud of the way the results have turned out and thank you for the able assistance of the Soil Conservation Service, whose help was immeasurable.

Sincerely yours,

C. W. Ekness, Chairman
Grand Forks County Water Resource District

CWE:pra

TESTIMONY
IN SUPPORT OF THE RESOLUTION
AUTHORIZING THE ENGLISH COULEE SOIL CONSERVATION SERVICE PROJECT
AT GRAND FORKS, NORTH DAKOTA
PRESENTED TO
SUB-COMMITTEE ON WATER RESOURCES
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

BY: H. C. "Bud" Wessman, Mayor
City of Grand Forks, North Dakota

Please accept this brief testimony as a positive statement of endorsement, coming from the local level, for the Soil Conservation Service project known as the English Coulee Diversion and Dry Dam Proposal. I have taken the liberty of contacting each of the esteemed United States Senators who are members of this Committee, but I wish to reiterate the absolute essentiality of this project to those of us living in and around Grand Forks.

In 1979, both urban and rural residents lost countless millions of dollars of potential revenue, of actual property damage, and of significant soil erosion because of the overland flooding which occurred in conjunction with the English Coulee. That normally docile stream, which flows into the southwest quandrant of Grand Forks, a City of 45,000, produced a sheet of water that moved across country from southwest to northeast, moving valuable soil and water into the city as it robbed the fertile valley area of top soil. As the water approached the city, it flooded homes and businesses and made a virtual island of the 325 bed regional hospital which serves a population base of approximately 250,000.

In response to the devastation caused by the English Coulee flooding, a coordinated, multi-level governmental approach to reduce the impact of any further damage in future years was designed. The estimated cost was approximately 1/3 of the cost of the damage of the 1979 flood alone, irrespective of the damage that would undoubtedly occur in future years of flooding, if no project were put in place.

Through the high level of cooperation of the Grand Forks City Council, the Grand Forks County Board of Commissioners, the State Water Commission, the State Legislature, and the Soil and Conservation Service of USDA, a project was generated that included a channel diversion and dry dam that would significantly reduce erosion in the watershed of the English Coulee, while also reducing the devastatingly negative impact of coulee flooding on the City of Grand Forks. The cost was to be divided between 3 levels of government - local, state, and federal (through the SCS mechanism).

I am proud to be able to tell you that both the local and state portions of this project are near completion, and the funds have been allocated by those two levels of government.

But the diversion channel, the necessary culvert sizing, and the bridge reconstruction that occurred with state and local funding will go for naught if the third, and final phase of this project - that of the erosion control dry dam to be funded by SCS, is not put in place. In other words, without your help, the funding from hard earned local and state tax monies will be ineffectual unless you can assist us in securing the necessary SCS funding to make this total project a reality.

The support of the Water Resources Subcommittee, and ultimately the support of the entire Committee on Environment and Public Works is vitally needed for this project. Not only will it have a direct impact on preventing soil erosion and thus have positive impact on that valuable natural resource, it will also have a direct impact on prevention of millions of dollars of urban damage whenever high water occurs in the English coulee drainage area. Further, because of the high water in 1979, the Grand Forks flood plain map was altered significantly, and this has had a negative impact on industrial growth, and economic growth, in the City of Grand Forks because of the inclusion of many industrial and residential areas in the flood plain - something that will be reversed when the SCS dry dam is put in place.

Committee Members, with your support of funding, a very positive story about the true meaning of intergovernmental cooperation and "federal-local" partnership can be told, using the English Coulee Diversion and Dry Dam project as a stellar example of your support of this type of cooperative venture.

Thank you for your attention to this brief written testimony.

STATEMENT

BY

SENATOR ROBERT C. BYRD

SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

SUBCOMMITTEE ON WATER RESOURCES

Re-authorization - Upper Mud River Watershed Project

September 26, 1985

Mr. Chairman, I appreciate this opportunity to submit a statement in behalf of re-authorization of the Upper Mud River Watershed project at a funding level reflective of increased costs. In order for this project to move forward to completion, the Federal share must be increased from the $4.4 million approved earlier to $7.3 million.

The Upper Mud River Watershed project -- which can so greatly benefit Lincoln, Boone, and Cabell Counties in southwest West Virginia -- has been in the making since the late 1960's, and was originally approved by the Senate Environment and Public Works Committee on September 30, 1982.

Since that time, local sponsors -- including the Lincoln and Boone County Commissions and the Guyan Soil Conservation District -- have been actively pursuing the installation of land

treatment measures, rights for the dam installation, and they have been obtaining funds for their share of the construction cost. They have formed the Lincoln County Development Authority, whose primary responsibility is the installation of this project. Their commitment to date has been substantial.

Benefits of this project to these three southwestern counties in West Virginia are tremendous, and at relatively small Federal expense.

In the Hamlin, West Virginia, area alone, in Lincoln County, 83 residential buildings, 18 commercial buildings, 4 garages and 1 church will receive 100-year flood protection. A lesser level of flood protection will be provided many downstream properties between Hamlin and Milton, West Virginia. This project will allow the average annual flood damages in the area to be reduced from $100,100 to $8,100, based on 1977 dollars.

In addition, the recreation opportunities from the 300-acre lake which this project will create, will act as a catalyst for development in the region. This is expected to help reduce the high unemployment rate as well as to meet a large public recreation need. Also, land treatment measures planned for 50,300 acres of watershed lands will reduce soil erosion, and, in turn,

decrease downstream sediment damages, resulting in improved water quality.

Federal contributions to this project have increased primarily due to new federal guidelines requiring increased design criteria to adequately protect the public's safety, health, and general welfare. These guidelines were implemented following the failure of several dams across the country. In addition, a latent foundation condition was discovered during the design investigation which has added to the cost.

The benefit-to-cost relationship with the increased costs included still remains positive at 1-to-1, and this calculation only includes benefits in the upper reaches of the watershed. It does not include downstream benefits in the Milton, Cabell County area. If these were quantified, the relationship would be even more positive.

As I have previously noted, local contributions to this project have been substantial. These include a special county-wide tax levy which is currently worth $704,000, a $500,000 commitment from Boone County, and a $633,900 appropriation by the State of West Virginia. These funds are being used to secure the necessary land rights, which are now about 40 percent completed.

To stop work on this much needed project at this time would be most expensive to the local sponsors who have proceeded in accordance with federal commitment and in good faith. It would also take away over 25 years of hard work by these people to do something about their problems. Therefore, I urge my colleagues to take action to re-authorize this project so that work can proceed in a timely manner toward a November 1, 1985, bidding and contracting date.

Statement of

THE HONORABLE JOHN D. ROCKEFELLER IV

Before the Environment Subcommittee on Water Resources

Committee on Environment and Public Works

U.S. Senate

September 26, 1985

I strongly support the U.S. Department of Agriculture's request to continue with the the installation of the Upper Mud River Watershed project in West Virginia. To accomplish this, the USDA has asked Congress to raise the funding level for this project. I urge this Committee and the Congress to take this necessary step.

Like other watershed projects, the Upper Mud project is one that most people do not notice on a day-to-day basis. It's not like a new museum or a large public building. A watershed project is something most people take for granted. That is, until a flood occurs in their county.

It's estimated that Lincoln and Boone counties suffer an estimated $100,000 in flood damage annually. The completion of this project is the key to the future of these two counties. Without the protection of the Upper Mud Watershed project, further economic development in Lincoln and Boone counties will

be hindered. Homes, farms, businesses, industries, roads, bridges, and utilities in these counties are consistently victims of severe flood damage.

Additionally, the Upper Mud Watershed project has the capability of serving as a recreational facility for the residents of these two counties. At this time, children in Lincoln county must travel at least twenty miles to neighboring counties for any type of recreational activities.

The Upper Mud represents the best in local, state, and federal cooperation. Since 1982, local sponsors have made substantial commitments to the project, including a special county-wide tax levy that is currently worth $704,000, a $500,000 commitment from Boone County, and $133,900 from the State.

I am confident that the federal dollars put into this project are a wise investment. In terms of flood damage prevention, economic development, and potential recreation opportunities in these two counties, the watershed will pay for itself many times over. I ask this Committee's help to ensure the completion of the Upper Mud Watershed project.

I am including with my statement a copy of a letter sent to me by the Lincoln County Commission in support of the Upper Mud Watershed project.

COUNTY COMMISSIONERS
ANDREW J. STOWERS, PRESIDENT
VERNON McCOY
PAUL DUNCAN
TERMS OF COUNTY COMMISSION
FIRST THURSDAY IN EACH MONTH
2:30 P.M.

Lincoln County Commission
Lincoln County
P.O. BOX 497
HAMLIN, WEST VIRGINIA 25523
TELEPHONE 824-7679

October 3, 1985

Ms. Amy Burger
Office of Senator John D. Rockefeller IV
239 Dirksen Senate Office Building
Washington, D.C. 20510

Re: Upper Mud River Water Shed

Dear Senator Rockefeller:

The Lincoln County Commission would like to take this opportunity to speak to you onbehalf of the Upper Mud River Water Shed Basin Project, which would provide flood prevention benefits for Lincoln, Boone and Cabell Counties in West Virginia. The Water Shed could protect local crops, roads and bridges, and residential and commerical properties.

Also the Water Shed could prouvide Lincoln County with a much needed recreational facility. As of this date Lincoln County Youth must travel at least Twenty miles to neighboring counties for recreational purposes.

We, the Commissioners of Lincoln County, at this time would like to ask for your support in helping us aquire additional funding for land condemnation and aquisition as well as for road relocation and utility relocation.

Sincerely,

Andrew J. Stowers
ANDREW J. STOWERS, PRESIDENT

Paul D. Duncan
PAUL D. DUNCAN, COMMISSIONER

Vernon McCoy
VERNON MCCOY, COMMISSIONER

CC/ms

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MARGARET P. CRENSHAW MINORITY STAFF DIRECTOR

United States Senate

COMMITTEE ON
GOVERNMENTAL AFFAIRS
WASHINGTON, DC 20510

September 26, 1985

Senator James Abdnor
Chairman, Subcommittee on Water Resources
Senate Environment and Public Works Committee
Washington, D.C. 20510

Dear Mr. Chairman: Jim

I am writing in support of the project planned for the West Fork of Big Creek Watershed located in Harrison and Daviess Counties, Missouri and Ringgold and Decatur Counties, Iowa.

The watershed contains some 187,000 acres of farmland that has suffered the extremes of flood and drought over the years. The flooding has caused serious soil erosion and sedimentation that has hurt farmers' productivity. Droughts have contributed equally to the declining farm economy in this part of the state, and residents have experienced water shortages. The City of Bethany, Missouri, is particularly dependant upon surface water for its domestic water supply. During the 1980 drought, the City was down to a third of its water storage capacity. A rural water district organized for Harrison County has had its plans on hold for lack of a water supply source. These problems would be alleviated by implementation of the watershed protection project recommended by the Soil Conservation Service study.

The recommended watershed plan consists of one multiple-purpose dam with storage for municipal, industrial, recreation and rural water supply and floodwater detention, 352 small floodwater retarding dams and accelerated land treatment. Total project costs are $17,371,000 of which $4,343,800 would be financed with local funds. Construction would be completed within 10 years.

The watershed protection plan enjoys widespread support from local sponsors and community leaders. It is a project that is essential to the future health and well-being of the region. I, therefore, urge the Committee to act favorably in approving the protection plan for the West Fork of Big Creek Watershed.

Yours very truly,

Tom

Thomas F. Eagleton
United States Senator

TFE/vk

JOHN C. DANFORTH, MISSOURI, CHAIRMAN

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RALPH B. EVERETT, MINORITY CHIEF COUNSEL AND STAFF DIRECTOR

United States Senate
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
WASHINGTON, DC 20510

September 25, 1985

The Honorable James Abdnor
Chairman
Subcommittee on Water Resources
Committee on Environment and Public Works
SD-410
Washington, D. C. 20510

Dear Jim:

I understand that on Thursday your Subcommittee will be considering proposals for three new Soil Conservation Service projects, including the West Fork of Big Creek Watershed project in northern Missouri and Iowa. I am writing to express my strong support for this project and my hope that the Subcommittee can give it timely approval.

Sincerely,

John C. Danforth

SENATOR DALE BUMPERS' TESTIMONY BEFORE THE SUBCOMMITTEE ON WATER RESOURCES OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS THURSDAY, SEPTEMBER 26, 1985

Mr. Chairman, I am pleased to have the opportunity today to testify in support of the Soil Conservation Service's request for a cost ceiling increase to $5.3 million for the South Fork Watershed project in Arkansas. The 44,851-acre project, located in Montgomery County, is of tremendous importance to the small rural community of Mount Ida.

The citizens of Mount Ida have long faced very serious problems due to flooding of the South Fork of the Ouachita River. Many homes in this town experience flood damage amounting to thousands of dollars annually. Roads through the valley are flooded quite often, which presents a major obstacle for those who must commute in and out of the area. Farmers must not only deal with flooded-out crops, but a significant loss of topsoil, as well. The improvements brought by this project will have an important, positive impact on the economy of the entire area.

Approval of the requested cost ceiling increase will allow the land treatment efforts of the local conservation district to be accelerated to reduce serious erosion. One flood-control structure is currently under construction and should be completed by 1990. Plans have been drawn up for two additional structures which will not only provide additional flood protection, but

water storage for the City of Mount Ida, as well. The citizens currently pump their water from the Ouachita River. Increased sediment flowing downstream from flooded fields has limited the town's water supply and and this sediment continues to build up in Lake Ouachita. The project will include structures to trap the sediment, thereby offering protection to the land, the river and the lake. Additionally, increased water storage will be available for the City of Mount Ida for municipal and industrial use. The City is anxious to expand its service area east of the town along Lake Ouachita, where many citizens are now locating, but cannot do so without this increased storage.

Another very important benefit will also be realized with the full implementation of this project. Since the project was authorized, the county road that runs through the flood plain has been included in the state highway system. The Arkansas Department of Transportation is developing plans to improve the road. With the project in place, bridge sizes can be reduced, resulting in a savings for the state of about $1,250,000.

Local sponsors are very anxious for the work to continue. The City of Mount Ida and the State Soil and Water Conservation Commission have obtained the necessary land rights and contributed approximately 39 percent toward the costs of the engineering design work. They are actively pursuing a Farmers Home Administration loan to assist with additional costs. Costs have risen since project construction was first approved in 1976 due to improvements in structural design which will ensure

increased flood protection and safety, and the implementation of stricter environmental policy requirements which required additional personnel and time to obtain water quality permits.

It is essential for necessary federal funds to be available to proceed with this important project. Approval of the Soil Conservation Service's requested federal cost ceiling increase will allow the installation of these vitally-needed structures to be completed. Mr. Chairman, I thank you and the members of the Subcommittee for your consideration of this important request, and urge you to see that the required funding is provided. This project has my full and vigorous support.